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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,474	08/26/2003	Hiroyuki Nagano	2003_1209A	2306

513 7590 04/05/2007  
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WASHINGTON, DC 20006-1021

EXAMINER
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SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/647,474

Applicant(s)

NAGANO ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 8-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Please note that the examiner of record has changed. The new examiner is Callie Shosho.
2. All outstanding objections and rejections are overcome by applicants' amendment filed 1/11/07.

In light of the new grounds of rejection set forth below, the following action is non-final.

**Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Mizutani et al. (U.S. 6,727,310).

Mizutani et al. disclose water-based metallic coating composition comprising 100 parts resin composition comprising resin having carboxyl group and hydroxy group and crosslinking agent, 0.5-40 parts metallic pigment including flaky aluminum, deposited aluminum, mica, bismuth oxychloride, etc., and 0.1-8, preferably 1-5, parts polyamide was known under the tradename Disparlon AQ-60 which is identical to that utilized in the present invention (col.1, lines 5-8, col.1, line 41-col.2, line 12 and col.2, lines 25-38). Given that Mizutani et al. disclose

composition identical to that presently claimed, it is clear that the composition would inherently possess storage modulus of elasticity after spray coating of at least 100 Pa/20 °C under conditions of 0.5 Pa stress and 0.1 Hz frequency as presently claimed.

Although there is no disclosure in Mizutani et al. that the coating composition is a paint as presently claimed, applicants' attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. paint, recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art composition and further that the prior art structure which is a composition identical to that set forth in the present claims is capable of performing the recited purpose or intended use.

In light of the above, it is clear that Mizutani et al. anticipates the present claims.

**Claim Rejections - 35 USC § 103**

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakui (U.S. 5,994,494).

Wakui discloses water-based metallic paint comprising 0.25-5% polyamide anti-settling agent, resin composition comprising base resin and crosslinking agent, and metallic pigment including aluminum and mica (col.1, lines 4-9, col.2, lines 9-10 and 4-6, col.3, lines 1-4 and 43, col.4, lines 8-16 and 25-34, and col.7, line 65-col.8, line 40).

The difference between Wakui and the present claimed invention is the requirement in the claims of the amount of polyamide per 100 parts resin composition.

Attention is drawn to the example in col.7, line 65-col.8, line 40 that discloses paint comprising 44.1 parts acrylic resin, 6.4 parts melamine resin, 49.5 parts water, 5 parts metallic pigment, and 2 parts polyamide, i.e. anti-settling agent. It is calculated that the amount of polyamide per 100 parts resin composition (acrylic resin and melamine resin (crosslinking agent)) is approximately 4  $((2*100)/50.5)$ . Attention is further drawn to col.4, lines 25-28 which discloses the use of 0.25-5% anti-settling agent in the paint and discloses that if the amount is too low, the settling preventing effect is not sufficient and if the amount is too high, there is an increase in viscosity and lowering of luster. Based on this amount of polyamide, it is calculated from the example that the paint comprises polyamide in amount ranging from 0.49 – 9 parts per

Art Unit: 1714

100 parts resin composition  $((0.25*100)/50.5 - (5*100)/50.5)$  which clearly overlaps the amount present claimed.

Given that Wakui disclose composition as presently claimed including amount of polyamide that overlaps that presently claimed, it is clear that the composition would intrinsically also possess storage modulus of elasticity as presently claimed.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to utilize polyamide in amount, including that presently claimed, in order to produce paint with good anti-settling effect, viscosity, and luster, and thereby arrive at the claimed invention.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wakui as applied to claims 1 and 3-7 above, and further in view of Kusumoto Chemicals (DISPARLON information sheet).

The difference between Wakui and the present claimed invention is the requirement in the claims of specific polyamide.

Although Wakui discloses polyamide anti-settling agent, there is no disclosure of polyamide wax.

Kusumoto discloses Disparlon, a compound based on an amine salt of a polyamide wax designed for water-based systems. Disparlon interacts with resins to form a thixotropic structure to prevent pigment from settling or hard caking. Disparlon is dispersed into water-based paints and demonstrates a strong anti-settling effect without a loss of film gloss. The additive level is 1-3% of the total paint. The Disparlon is added to aqueous metallic paint with acrylic resin, melamine resin, and pigment particles.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use Disparlon as the polyamide anti-settling agent in Wakui because it not only demonstrates a strong ant-settling effect, which is important in the Wakui reference, but additionally results in no loss of film gloss, which would also be beneficial for a paint such as Wakui's and thus, one of ordinary skill in the art would arrive at the claimed invention.

### **Response to Arguments**

8. Applicants' arguments filed 1/11/07 have been fully considered but they are not persuasive.

Specifically, applicants argue that Wakui is not a relevant reference against the present claims given that the amount of polyamide is outside the scope of the present claims.

Applicants calculate, and the examiner agrees, that the example of Wakui discloses the use of approximately 4 parts polyamide per 100 parts resin composition, i.e. acrylic resin and crosslinking agent (melamine resin).

However, this is only one preferred embodiment of Wakui wherein the anti-settling agent is utilized in an amount of 2% based on the paint vehicle, i.e. acrylic resin, crosslinking agent, and water. A fair reading of Wakui as a whole clearly discloses that the polyamide is utilized in amount ranging from 0.25-5% based on the amount of paint vehicle. Thus, based on the example and utilizing 0.25% polyamide, it is calculated that the polyamide is present in amount of approximately 0.49 parts per 100 parts resin composition while based on the example and utilizing 5% polyamide, it is calculated that the polyamide is present in amount of approximately 9 parts per 100 parts resin composition.

Thus, a fair reading of Wakui as whole discloses the use of 0.49-9 parts polyamide per 100 parts resin composition which clearly overlaps that presently claimed. As set forth in MPEP 2144.05, in the case where the claimed range “overlap or lie inside ranges disclosed by the prior art”, a *prima facie* case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). Further, attention is further drawn to col.4, lines 25-28 of Wakui that discloses if the amount of polyamide, i.e. anti-settling agent, is too low, the settling preventing effect is not sufficient and if the amount is too high, there is an increase in viscosity and lowering of luster. Thus, it would have been obvious to one of ordinary skill in the art to utilize polyamide in amount, including that presently claimed, in Wakui in order to produce paint with good anti-settling effect, viscosity, and luster, and thereby arrive at the claimed invention.

With respect to claim 2, applicants argue that there is no motivation to utilize Disparlon as the specific polyamide in Wakui given that even if such polyamide were utilized in Wakui, the paint would not possess storage modulus of elasticity as presently claimed. As evidence to support this position, applicants point to 1.132 declaration filed 1/11/07.

The declaration shows that presently claimed paint (see example 1 of present specification) that utilizes 4 parts Disparlon per 100 parts resin composition possesses storage modulus of elasticity of 84 Pa/20 °C which is outside the scope of the present claims.

However, as discussed above, the example of Wakui is only one preferred embodiment of Wakui. A fair reading of the reference as a whole clearly discloses the use of 0.49-9 parts polyamide per 100 parts resin composition which overlaps the amount presently claimed. Given that Wakui discloses paint with amount of polyamide that includes that presently claimed, it is



Art Unit: 1714

clear that the composition would intrinsically also possess storage modulus of elasticity as presently claimed.


In light of the above, it is the examiner's position that Wakui remains a relevant reference against the present claims.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CS  
3/31/07

  
Callie E. Shosho  
Primary Examiner  
Art Unit 1714